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INTRODUCTION

Federal Home Loan Mortgage Corporation (“Freddie Mac”) submits this Memorandum of Law in Support of its Motion to Strike Reports and Exclude the Testimony of Dr. Steven P. Feinstein and for an Evidentiary Hearing.

PRELIMINARY STATEMENT

The Federal Rules of Evidence, and specifically Rule 702, “assign to the trial judge the task of ensuring that an expert’s testimony both rests on a reliable foundation and is relevant to the task at hand.” *Daubert v. Merrill Dow Pharm., Inc.*, 509 U.S. 579, 597 (1993). Dr. Feinstein’s opinions on the subject of market efficiency, as set forth in his reports and at deposition, fail the threshold test of reliability. Accordingly, the Court should strike his reports¹ and exclude his testimony.

Lead Plaintiff Ohio Public Employees Retirement System (“OPERS”) proffers Dr. Feinstein’s testimony on market efficiency to try to support its motion for class certification. To prevail on its motion, OPERS must “affirmatively demonstrate” compliance with Rule 23. *Wal-Mart Stores, Inc. v. Dukes*, 564 U.S. 338, 350 (2011). In putative securities class actions, where, as here, plaintiffs seek to proceed under the fraud-on-the-market theory, “[c]lass certification is only warranted if plaintiffs can establish by a preponderance of the evidence a class-wide presumption of reliance by virtue of the presence of an efficient market critical to the fraud-on-the market theory.” *George v. China Auto. Sys., Inc.*, No. 11-cv-7533, 2013 WL 3357170, at *7 (S.D.N.Y. July 3, 2013). OPERS is unable to establish market efficiency because it relies solely on the opinions of Dr. Feinstein, whose opinions fail the tests of reliability set forth in *Daubert* and now codified in Rule 702. Indeed, in several critical respects, Dr.

¹ Report on Market Efficiency, Professor Steven P. Feinstein, June 7, 2017 (ECF No. 372-3); Rebuttal Report of Professor Steven P. Feinstein, Oct. 16, 2017 (ECF No. 406-1).

Feinstein's methodologies outright contravene accepted practices among financial economists, not to mention his own practices in prior cases.

As discussed below, and in Freddie Mac's Memorandum of Law in Opposition to OPERS's Motion for Class Certification ("Opposition Brief" or "OB") (ECF No. 383), to establish market efficiency, OPERS must sufficiently demonstrate that the release of unexpected material information promptly and consistently caused a corresponding change in the price of Freddie Mac common stock. As Dr. Feinstein admitted during his deposition, "[f]or a market to be efficient, it needs to be incorporating available information, all the time." Ex. A (Feinstein Tr. I) 97:5-8.² Dr. Feinstein conceded that he would not stake his professional reputation on whether a market is efficient without conducting one or more empirical studies to assess the cause-and-effect relationship between information and stock price movements. Ex. A (Feinstein Tr. I) 179:8-24.

Dr. Feinstein should not be allowed to testify regarding his empirical studies of this cause-and-effect relationship in this case because in conducting these studies, Dr. Feinstein flouted the scientific method. As the Court will recall, OPERS asked this Court for – and was granted – leave to substitute its designated market efficiency expert, Dr. Greg Hallman, with Dr. Feinstein. Before Dr. Feinstein analyzed the market for Freddie Mac stock, he first reviewed the work of OPERS's prior expert, Dr. Hallman, and Freddie Mac's expert, Dr. Mukesh Bajaj.³

² As used herein, "Ex. ____" refers to an exhibit to the Declaration of Jason D. Frank, Esq. submitted concurrently herewith in support of Freddie Mac's Motion. Capitalized terms used here to describe these exhibits are defined in that affidavit.

³ Dr. Bajaj is the Managing Director and the Global Head of the Securities and Finance Practice at consulting firm Navigant Economics LLC. Ex. H (Bajaj Rpt.), ¶ 1. He has a Ph.D. in Business Administration from the University of California at Berkeley and an M.B.A. from the University of Texas at Austin. *Id.* ¶ 2. Dr. Bajaj's relevant experience in the field of financial economics includes, among other things, teaching graduate level courses at multiple universities,

In so doing, Dr. Feinstein learned that Dr. Hallman’s industry-standard approach to testing market efficiency, *i.e.*, an event study focused on the dates corporate financial results were published (“earnings dates”), failed to establish market efficiency, as only one of the six dates tested yielded statistically significant results. Ex. A (Feinstein Tr. I) 91:2-18.

Seeking to avoid that outcome and, instead, achieve results that would support OPERS, Dr. Feinstein deviated from the standard practice by custom-tailoring two modified empirical studies. Both are inherently unreliable. The first was an event study. The standard practice in constructing an event study – which Dr. Feinstein himself has followed in past engagements – is to test earnings dates. But knowing from Dr. Hallman’s test results that standard practice would not achieve the desired outcome here, Dr. Feinstein constructed an event study to test only the last day of the Plaintiff’s chosen class period, *i.e.*, a single date out of the 330-day class period. Not only does a single-date event study rely on insufficient data to support a reliable conclusion, but Dr. Feinstein’s decision to test the last day of the class period not surprisingly skewed his results to favor OPERS (*see infra* Section II.A).

The second customized test was a “z-test” that Dr. Feinstein modified specifically for this case. That test, too, fails to satisfy Rule 702’s threshold reliability requirements (*see infra* Section II.B). Putting Dr. Feinstein’s modifications to the side for one moment, a z-test is not a reliable test to assess market efficiency. Applying a z-test for that purpose was the proposal of a lawyer and two economists who published an article on the topic in a law review, not a peer-reviewed journal. The authors never claimed the z-test was appropriate or sufficient to prove market efficiency. Indeed, they stated that the z-test was “a threshold step, not a sufficient condition to show that a stock traded in an efficient market.” Ex. I (Ferrillo, et al., *The “Less*

lecturing widely and co-authoring over 25 publications in the field, and having testified as an expert in over 60 matters, including 30 securities cases. *Id.* ¶¶ 3-7.

Than” *Efficient Capital Markets Hypothesis: Requiring More Proof From Plaintiffs in Fraud-On-The-Market Cases*, 78 St. John’s L.Rev. 81, 128 (2004)) (hereinafter, “FDT Article”). In any event, Dr. Feinstein did not even construct his z-test in the manner proposed by the authors or used by Dr. Feinstein in other matters. Instead, he tinkered with the methodology, again in ways that skewed his results in ways that would favor OPERS.

Finally, Dr. Feinstein’s attempts to opine on case law are also not the proper subject of expert opinion for a jury, let alone a financial economist’s opinion (*see infra* Section II.C). For these reasons, as discussed further below, this Court should exclude Dr. Feinstein’s reports and testimony.

ARGUMENT

I. EXPERT TESTIMONY THAT IS UNRELIABLE MUST BE EXCLUDED.

Expert testimony is admissible only if (1) the testimony is based on sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the expert has reliably applied the principles and methods to the facts of the case. Fed. R. Evid. 702. The proponent of the expert testimony has the burden of establishing by a preponderance of the evidence that the proposed testimony satisfies those standards. *See* Fed. R. Evid. 702 advisory committee’s note (2000); *Daubert*, 509 U.S. at 592 n.10. To meet that burden, OPERS must show that Dr. Feinstein’s opinions – and the methodologies used to reach them – meet “exacting standards of reliability.” *IBEW Local 90 Pension Fund v. Deutsche Bank AG*, No. 11-cv-4290, 2013 WL 5815472, at *15 (S.D.N.Y. Oct. 29, 2013) (quoting *Weisgram v. Marley Co.*, 528 U.S. 440, 455 (2000)).

While “not a definitive checklist or test,” the following factors frequently bear on the analysis of whether an expert’s testimony is the product of reliable principles and methods:

(1) whether a theory or technique . . . can be (and has been) tested; (2) whether the theory has been subjected to peer review and publication; (3) whether, with respect to a particular technique, there is a high known or potential rate of error and whether there are standards controlling the technique's operation; and (4) whether the theory or technique enjoys general acceptance within a relevant scientific community.

Johnson v. Manitowoc Boom Trucks, Inc., 484 F.3d 426, 430, 434 (6th Cir. 2007) (internal quotation marks and citations omitted). In addition, the Sixth Circuit often analyzes another factor relating to the admissibility of expert testimony, the “Prepared-Solely-For-Litigation Factor.” *Id.* at 434; *see also Hayes v. MTD Prods., Inc.*, 518 F. Supp. 2d 898, 900-01 (W.D. Ky. 2007). Under this factor, the Sixth Circuit “has recognized for some time that expert testimony prepared solely for purposes of litigation, as opposed to testimony flowing naturally from an expert’s line of scientific or technical work, should be viewed with some caution.” *Johnson*, 484 F.3d at 434; *see also Mike’s Train House, Inc. v. Lionel, L.L.C.*, 472 F.3d 398, 408 (6th Cir. 2006) (“We have been suspicious of methodologies created for the purpose of litigation.”).

Applying these principles, courts exclude testimony where financial economists seeking to offer expert testimony on market efficiency depart from accepted methodologies. *See Carpe v. Aquila, Inc.*, No. 02-cv-0388, 2005 WL 1138833, at *4 (W.D. Mo. Mar. 23, 2005) (excluding testimony and report of plaintiff’s expert where he failed to “perform a proper event study” and failed to “follow the accepted methodology of his field”); *Bell v. Ascendant Sols., Inc.*, No. 01-cv-0166, 2004 WL 1490009, at *4 (N.D. Tex. July 1, 2004), *aff’d*, 422 F.3d 307 (5th Cir. 2005) (excluding market efficiency expert and denying class certification where expert applied “a technique never previously used to test for market efficiency”); *see also Freddie Mac Kreysar*, 281 F.R.D. at 181 (discrediting market efficiency expert and denying class certification where expert performed “two inconsistent event studies” and his opinions were “poorly supported”); *In re Xcelera.com Sec. Litig.*, No. 00-cv-11649, 2008 WL 7084626, at *1-2 (D. Mass. Apr. 25,

2010) (excluding market efficiency expert where expert used techniques not supported in peer-reviewed journals).

Likewise, courts exclude testimony where financial economists opining on market efficiency adopt approaches that skew their results in favor of their litigant clients. *See, e.g., In re Northfield Labs, Inc. Sec. Litig.*, 267 F.R.D. 536, 548 (N.D. Ill. 2010) (excluding testimony of market efficiency expert who “made decisions about the study that tend to skew it towards a conclusion that the market was efficient”); *Bell*, 2004 WL 1490009, at *3 (excluding expert testimony where expert included dates that appeared “consciously chosen in order to artificially support his hypothesis of efficiency”); *In re Rezulin Prods. Liab. Litig.*, 309 F. Supp. 2d 531, 563 (S.D.N.Y. 2004) (excluding expert who “violated his own standard of proper methodology”).

In addition, courts exclude expert testimony when an expert’s conclusions are not supported by her results or methodology. *See, e.g., Xcelera.com*, 2008 WL 7084626, at *1 (excluding market efficiency expert where expert’s “theory [did] not match the facts”) (citation omitted); *In re TMI Litig.*, 193 F.3d 613, 677 (3d Cir. 1999) (affirming exclusion of expert testimony as unreliable because expert’s opinion “was not supported by his own methodology”). Dr. Feinstein’s two studies on the issue of market efficiency suffer from all of these defects and, therefore, should be excluded.

II. DR. FEINSTEIN’S OPINIONS ARE UNRELIABLE.

A. Dr. Feinstein’s Opinions Based On His Single-Date, Last-Day-Of-The-Class-Period Event Study Are Unreliable.

Dr. Feinstein’s single-date event study to assess market efficiency over a 330-day class period does not survive the Sixth Circuit’s standards for admissibility. Dr. Feinstein should not be allowed to opine on his event study under any of the three prongs of the admissibility standard.

1. Dr. Feinstein's Opinions Based On His Single-Date Event Study Are Based On Insufficient Facts.

As an initial matter, Dr. Feinstein's testimony based on his single-date event study is not admissible because it is not "based on sufficient facts or data." Fed. R. Evid. 702. As recognized by numerous courts, market efficiency across a lengthy class period cannot be assessed based upon a lone stock price reaction to news that concludes the class period. *See Bell v. Ascendant Sols., Inc.*, 422 F.3d 307, 316 (5th Cir. 2005) ("this single decline on the last day of the class period is plainly insufficient by itself to show market efficiency throughout the class period"). Counsel is aware of no case certifying a class based upon an event study involving only one day, let alone the last day of the class period, or an expert who has survived a *Daubert* challenge using such a methodology. Indeed, the law flatly rejects the notion that such a test is probative of market efficiency.⁴

Decisional authority aside, it defies logic to suggest that an event study of stock price movement on a single date could possibly demonstrate that a market for a security was efficient at all times, every day, over the entire prior year. Indeed, Dr. Feinstein does not go so far. While his report appears to suggest that his event study proves the market for Freddie Mac common stock was efficient throughout the class-period, Ex. E (Feinstein Rpt.) ¶¶ 136, 139, 147, Dr. Feinstein conceded at his deposition that a single stock price reaction on November 20, 2007 could not possibly demonstrate that the stock traded in an efficient market fifteen months earlier in August 2006, Ex. A (Feinstein Tr. I) 178:7-12, and he admitted that his event study did not

⁴ Event studies relying upon many more than just one day during a class period have been deemed insufficient. *George*, 2013 WL3357170, at *12 (price reaction on seven out of sixteen days "is an insufficient foundation upon which to pronounce market efficiency"); *Freddie Mac Kreysar*, 281 F.R.D. at 180 (sixteen of fifty-seven days insufficient to establish market efficiency).

prove market efficiency for the duration of the class period. Ex. A (Feinstein Tr. I) 179:8-23; 372:5-25; Ex. H (Bajaj Rpt.) ¶¶ 55-57.

Dr. Feinstein himself cites authorities – namely Ferrillo, Dunbar and Tabak (“FDT”) – that recognize that conducting event studies on too few events renders those studies unreliable. For example, in a paper Dr. Feinstein cited in an earlier declaration in this case,⁵ Dr. David Tabak explains that a “Proof-by-example” approach analyzing only a “handful” of days is fatally flawed. *See* Ex. H (Bajaj Rpt.) ¶ 54. In a different article cited by Dr. Feinstein, FDT generally discuss the scientific prerequisites for any valid attempt at assessing market efficiency, and conclude: “**Merely demonstrating a single or small number of cases where there is an apparent cause and effect relationship is not enough**, since this measures only one point in time during the class period, and only the stock’s response to one or a handful of disclosures.” Ex. I (FDT Article) 128 (emphasis added).

In sum, Dr. Feinstein’s use of a single date for his event study finds no support in the law or logic, and is even rejected by the very authorities cited by Dr. Feinstein.

2. A Single-Date Event Study Is Not A Reliable Methodology.

a. A Single-Date Event Study Is Not A Tested Technique For Evaluating An Extended Class Period.

Dr. Feinstein claims that he had no choice but to test only one date in the 330-day class period. Ex. A (Feinstein Tr. I) 75:15-78:16. But there is no financial literature addressing whether such a test could possibly establish market efficiency over such an extended time period. Indeed, even Dr. Feinstein shied away from the position that his single-date event study proves market efficiency over the class period. Ex. A (Feinstein Tr. I) 165:13-168:14.

⁵ *See* Ex. D (Feinstein Decl.) ¶ 22, n.6.

b. Using A Single-Date Event Study To Evaluate Market Efficiency Over An Extended Period Is Not Generally Accepted By Economists Nor Is It Peer Reviewed.

Using an event study focused on a single date to try to establish that the market for a particular security was efficient for the entirety of a 330-day class period is a method that is neither generally accepted nor peer reviewed. No academic literature supports the view that market efficiency over an extended period of time may be established by testing only one date, and the existing literature supports the opposite conclusion. Ex. H (Bajaj Rpt.) ¶¶ 50-54; *see Daubert*, 509 U.S. at 593 (peer review meaning “submission to the scrutiny of the scientific community”). Indeed, Dr. Feinstein all but admitted that no literature, academic or otherwise, supports such a method. *See* Ex. C (Feinstein Tr. III) 756:21-757:4 (Dr. Feinstein’s testimony demonstrating that he was unable to name even one paper or case in which such methodology has been used). As noted above, the accepted method involves the testing of many days, not one. Ex. H (Bajaj Rpt.) ¶ 50.

c. There Are No Standards Of Control Or Rate Of Error For A Single-Date Event Study.

Dr. Feinstein’s single-date event study also suffers from the absence of “standards controlling the technique’s operation” or known or potential rates of error. *See Johnson*, 484 F.3d at 429. As Dr. Tabak explains in the article on which Dr. Feinstein relies, an event study with too few “events” is incapable of distinguishing whether stock price movements are the probable result of news events or simply random variation. Ex. H (Bajaj Rpt.) ¶ 54. **“A serious, and in fact, fatal, problem** with this approach is that one would expect to see such results if stock-price movements were completely random and had no average correlation with news events.” *Id.* (emphasis added). By using multiple dates, a financial economist could test dates

throughout a class period, including the beginning, middle, and end of that period. Testing a single date, however, begs the question as to what is established beyond that lone date.

**d. Dr. Feinstein's Single-Date Event
Study Was Prepared Solely For This Litigation.**

**(1) Dr. Feinstein Selected November 20, 2007,
Knowing Beforehand The Results Of His Test.**

Even assuming *arguendo* that a single-date event study is based on sufficient facts and is a reliable method for testing market efficiency – and it is not – the manner in which Dr. Feinstein applied that test here also dictates exclusion of his testimony. It should be obvious, even to those without a background in statistics or econometrics, that the events for study “should be selected using criteria that are as objective as possible” and “those criteria should be determined **before** looking at the result to be studied [here, stock returns]” *Plumbers & Pipefitters Nat. Pension Fund v. Burns*, 967 F. Supp. 2d 1143, 1156 (N.D. Ohio 2013) (citation omitted) (emphasis added); accord *Brown v. China Integrated Energy Inc.*, No. 11-cv-02559, 2015 WL 12720322, at *7 (C.D. Cal. Feb. 17, 2015) (“In analyzing event studies at the class certification stage, courts have acknowledged that ‘many decision points in designing an event study require some subjectivity.’ **But the researcher must take steps to minimize that inevitable subjectivity.**”) (citation omitted) (emphasis added). Indeed, courts exclude purported expert opinions offering event studies in securities cases when the expert selects events already knowing whether there was a significant price impact beforehand. *Brown*, 2014 WL 12576643, at *7-8 (rejecting selection of events based upon price reaction); *Bell*, 2004 WL 1490009, at *3 & n.2 (rejecting event study as unreliable where expert selected “six or seven ‘information days,’” which included “dates that appear to be consciously chosen in order artificially to support his hypothesis of efficiency”). That is exactly what occurred here.

Dr. Feinstein selected November 20, 2007 – one day out of 330 – knowing full well beforehand what the results of a “test” of this date would yield. Ex. A (Feinstein Tr. I) 15:20-16:15 and 90:21-92:17; Ex. C (Feinstein Tr. III) 738:11-739:8 (Dr. Feinstein was aware of Dr. Hallman’s and Dr. Bajaj’s tests of November 20, 2007 before he constructed his event study).

Dr. Feinstein’s own, typical approach to event studies underscores his unreliable approach here. In prior cases, Dr. Feinstein conducted event studies on multiple earnings dates. Ex. A (Feinstein Tr. I) 119:9-16; 123:20-124:2; 125:17-126:25; 127:7-128:6. In the instant case, however, he selected instead the only date during the class period where prior experts agreed there was a statistically significant stock price reaction – the last day of the class period, November 20, 2007. See Ex. A (Feinstein Tr. I) 91:19-92:17; Ex. H (Bajaj Rpt.) ¶ 62. Incredibly, while admitting that there were other days during the remaining 329 days of the class period when material news about Freddie Mac was released, Dr. Feinstein chose not to include those dates because he did not believe they would elicit strong enough stock price reactions, *i.e.*, would not yield a result that would help OPERS:

Q. But you excluded 329 dates from your event study, correct?

A. Right. Some of those had no relevant or no strongly material news. Most of them had no strongly material news.

Q. Some of them did have material news; is that fair to say?

A. But not of the kind that you would expect necessarily would have – would have statistically significant impact on the stock price. I mean, it would have impact on the stock price, and you would detect it in a collective event study. But individually, because of the high threshold for significance, the kind of news that came out typically on each day of the class period was not the kind of news that would reasonably cause one to expect a statistically significant stock price response

Ex. A (Feinstein Tr. I) 87:21-88:25. In other words, Dr. Feinstein’s “event study,” which purports to “test” whether the market for Freddie Mac stock is efficient, purposefully excluded

days with material news because, in his subjective opinion, testing those days would not yield the result OPERS desired. Dr. Feinstein's test design thus impermissibly predetermined his results. That fact alone dictates that his opinions based on his event study should be excluded.⁶

(2) **It Was Improper For Dr. Feinstein
To Test The Last Day Of The Class Period.**

Moreover, even if Dr. Feinstein had not known what the result of testing the last day of OPERS's chosen class period would be – and he did – it still would have been improper for Dr. Feinstein to test that date. In a securities case, including the last day of a class period in any empirical test of market efficiency will bias the results. It is well known that securities plaintiffs commonly select a class period that ends on a date where there is a large stock price drop, alleging that drop was somehow a “corrective disclosure” of some previous misstatement. For this reason, FDT warn financial economists to “**exclude those days in which a corrective disclosure was made**” because plaintiffs would normally choose a class period where corrective disclosures coincide with large negative price movements; **including those days in the analysis [will] bias the results.**” Ex. I (FDT Article) 119 n.155. By testing only November 20, 2007, long after OPERS had chosen that date, Dr. Feinstein did not merely bias the result of his event study – he dictated the result.

That Dr. Feinstein's opinions are tailored for litigation is illustrated by the extent to which he opines on legal issues. Experts may opine on the facts, but not the law.⁷ Dr. Feinstein

⁶ *E.g.*, *In re Northfield Labs*, 267 F.R.D. at 548 (“Defendants argue that Dr. Hakala's event study is unreliable, because Dr. Hakala made decisions about that study that tend to skew it toward a conclusion that the market was efficient. . . . The Court agrees.”); *In re Live Concert Antitrust Litig.*, 863 F. Supp. 2d 966, 988 (C.D. Cal. 2012) (“This approach impermissibly predetermined the results of Dr. Phillips' analysis[.]”); *In re REMEC Inc. Sec. Litig.*, 702 F. Supp. 2d 1202, 1273 (S.D. Cal. 2010) (expert analysis inadmissible where expert's methodology “predetermines the results of his analysis”).

violates this cardinal rule by inextricably intertwining his economic opinions with his impermissible interpretations of the law. For example, Dr. Feinstein has admitted that, as an economist, he would not opine that a market is efficient absent evidence that the fifth *Cammer* factor (cause and effect) is satisfied. Ex. A (Feinstein Tr. I) 383:23-384:23. But then he argues that the legal standard for determining market efficiency is lower than that of a financial economist. *Id.* His report effectively makes the same point, with pages devoted to his interpretation of what courts accept as establishing market efficiency, replete with case law cites and quotes.⁸ His rebuttal report does as well.⁹ That Dr. Feinstein is more of an advocate than an expert serves to underscore the made-for-litigation nature of his opinions.

3. **Dr. Feinstein Did Not Reliably Apply His Event Study To The Facts Of This Case.**

For the reasons discussed above, Dr. Feinstein's event study is also unreliable given how Dr. Feinstein implemented it in this case. *See* Fed. R. Evid. 702 (expert must "reliably appl[y] the principles and methods to the facts of the case"). Dr. Feinstein selected November 20, 2007, knowing the results of his test and knowing that it was the date selected by OPERS to represent the end of the class period. *See supra* 10-11. Thus, Dr. Feinstein did not reliably apply his methodology to the facts here.

For all of the foregoing reasons, this Court should exclude Dr. Feinstein's opinions that are based in whole or in part on his single-date event study.

⁷ *See* Fed. R. Evid. 704(a); *Berry v. City of Detroit*, 25 F.3d 1342, 1354 (6th Cir. 1994). "Each courtroom comes equipped with a 'legal expert,' called a judge, and it is his or her province alone to . . . [determine] the relevant legal standards." *Burkhart v. Washington Metro. Area Transit Auth.*, 112 F.3d 1207, 1213 (D.C. Cir. 1997) (finding that expert witness testimony as to legal conclusions concerning relevant regulations is inadmissible).

⁸ *See, e.g.*, Ex. E (Feinstein Rpt.) ¶¶ 34-40.

⁹ Ex. F (Feinstein Rebuttal Rpt.) ¶¶ 54, 56, 75; Part III(C)(1) (Heading: "The z-test is A Widely Used Statistical Test that Has Been Used in Literature and **Accepted by Courts** as Demonstrative of Market Efficiency) (emphasis added).

B. Dr. Feinstein's Opinions Based On His Version Of The FDT Z-Test Are Unreliable.

Dr. Feinstein's opinions based on what he calls an "FDT z-test" should be excluded as well. Like his built-for-litigation event study test, Dr. Feinstein's z-test was based on insufficient data, is not reliable, and was not reliably applied by Dr. Feinstein to the facts here.

A z-test is a statistical tool used for analyzing whether two data sets differ significantly on some single, categorical characteristic. Ex. H (Bajaj Rpt.) ¶ 73.¹⁰ In a 2004 law review article, FDT proposed using the z-test as a threshold test to assess market efficiency. Ex. I (FDT Article) 119-22. As formulated by FDT, the test is intended to assess the extent to which a company's stock price experienced abnormal returns on "news days" as compared to "non-news days" during the class period.¹¹ According to FDT, if the company's stock price experienced abnormal returns more frequently on news days than non-news days to a degree of statistical significance, that might serve as an initial step toward concluding that the market was efficient. *Id.* The authors never claimed the z-test was appropriate or sufficient to prove market efficiency, however. Indeed, they cautioned, "this test is a threshold step, not a sufficient condition to show that a stock traded in an efficient market." *Id.* at 122. For this and other reasons, discussed below, this Court should exclude Dr. Feinstein's opinions based on his z-test.

¹⁰ As courts adjudicating *Daubert* motions have readily recognized, "simply because a method is valid for one purpose does not mean it is valid for another." *In re Med Diversified, Inc.*, 346 B.R. 621, 629 (Bankr. E.D.N.Y. 2006) (granting *motion in limine* to exclude expert report where methodology was flawed, and denying motion to replace expert) (citation omitted).

¹¹ "News days" are defined as all days on which news about the company was released to the public, but excluding alleged corrective disclosure days (because including them biases the results) and also excluding days on which the news related solely to stock price movement. Ex. I (FDT Article) 119-20. "Non-news days" are defined as days in which the company is not mentioned in the news. *Id.*

**1. Dr. Feinstein's Opinions Based On His
Z-Test Are Based On Insufficient Facts.**

A statistically valid z-test requires that the two samples – here news and non-news days – be sufficiently large for the test results to be valid. Dr. Feinstein's samples were insufficiently large, as he himself admitted. Dr. Feinstein specifically cites textbooks that provide sample size conditions for a z-test to be deemed reliable. Ex. D (Feinstein Decl.) ¶ 22 n.4. At his deposition, Dr. Feinstein admitted that the sample size here failed two of three conditions that must be met for a z-test to be deemed reliable, and despite his lack of understanding of the third criteria, his test failed that condition, as well. Ex. A (Feinstein Tr. I) 206:5-14; 216:3-6; Ex. H (Bajaj Rpt.) ¶¶ 104-09; 146; 148-54. Thus, as constructed, Dr. Feinstein's z-test had too small a sample size to be considered reliable by financial economists. Due to this fatal flaw, the Court should exclude Dr. Feinstein's opinions based on the z-test.

Dr. Feinstein tried to rehabilitate his z-test by claiming that he had run "diagnostic" tests which confirmed that the test was reliable despite the insufficient sample size. Ex. A (Feinstein Tr. I) 205:18-206:4. But his claim falls short. First, he did not mention those purported tests in his report, although he was required to list all data and other information supporting his opinion. Second, he did not provide the diagnostic tests' results until after his opinion on this point was challenged during his deposition, and those test results were admittedly generated after his deposition (he claimed his team failed to keep the original results), thus raising the question of whether the data existed when he rendered his opinion. Ex. B (Feinstein Tr. II) 431:18-435:14. Third, and most importantly, Dr. Feinstein's diagnostic tests themselves do not yield statistically significant results when corrected for a "structural break" in the market that Dr. Feinstein failed

to recognize and take into account. Ex. C (Feinstein Tr. III) 657:11-665:19; 653:22-654:24.¹²

Dr. Feinstein's opinions based on his z-test should be excluded for a related reason. Among economists, any test that assesses a relatively small number of dates is not an accepted method of assessing market efficiency (regardless of the sample size requirements that apply to z-tests in particular). As discussed above, the selection of a single date, or even a handful of dates, is not sufficient to establish market efficiency. Here, through his z-test, Dr. Feinstein has, at best, identified only **four** dates with statistically significant results across the entire 330-day class period, not one of which occurred during the first five months of the Class Period. On the basis of these four dates and his comparison of those dates to so-called non-news dates, Dr. Feinstein concludes that the market was efficient during the entire 330-day period, including the first five months of that period. Such a conclusion is at odds with logic as well as established economic principles relating to market efficiency. Ex. H (Bajaj Rpt.) ¶ 57.

2. A Z-Test Is Not A Reliable Method To Test Market Efficiency.

a. A Z-Test Is Not A Tested Method For Evaluating Market Efficiency.

By its very design, the z-test does not actually test market efficiency. Ex. H (Bajaj Rpt.) ¶¶ 88-99. As Dr. Feinstein conceded at deposition, a market that only "sometimes," or "rarely," incorporates available information is not efficient. Ex. A (Feinstein Tr. I) 96:11-97:4, 183:2-11. A z-test does not test whether a market is incorporating available information at all times, but rather only whether the market incorporates information **more often** on one group of days as compared to another. Ex. H (Bajaj Rpt.) ¶ 92; *see also* Ex. J (Tabak, D., *Use and Misuse of*

¹² A "structural break" is a market disruption such that the average price volatility prior to the break is different from the average price volatility after the break. Ex. H (Bajaj Rpt.) ¶ 135. As such, the tester needs to do what Dr. Feinstein failed to do here: use in their calculations the correct average price volatility for the periods before and after the structural break.

Event Studies to Examine Market Efficiency, NERA Working Paper (April 30, 2010)) 7-8 (hereinafter “Tabak 2010”) (explaining “several ways that versions of the FDT methodology may not be able to fully distinguish an efficient market from an inefficient one”). In other words, a positive z-test result is perfectly consistent with a market that only sometimes incorporates available information. Ex. H (Bajaj Rpt.) ¶ 92; see also *id.* at ¶¶ 91-99. As Dr. Feinstein admits, “[f]or a market to be efficient, it needs to be incorporating available information, all the time.” Ex. A (Feinstein Tr. I) 97:5-8.

b. Using A Z-Test To Evaluate Market Efficiency Is Not A Method Generally Accepted By Economists Or Peer Reviewed.

The FDT z-test has never been peer reviewed, and Dr. Feinstein identifies no peer reviewed literature discussing the FDT z-test, because there is none.¹³ Nor has this test gained general acceptance among financial economists as a test to determine market efficiency. Ex. H (Bajaj Rpt.) ¶ 82.

c. There Are No Standards Of Control Or Rate Of Error For An FDT Z-Test.

Given that the FDT z-test does not even test for market efficiency, is not peer reviewed, and has not achieved general acceptance among financial economists, there are no known rates of error for that test. Further, Dr. Tabak noted in a 2010 working paper that “the FDT methodology may not be able to fully distinguish an efficient market from an inefficient one.”

¹³ While Dr. Feinstein testified that an article written by Michael Hartzmark supports the use of the FDT test to assess market efficiency, Ex. A (Feinstein Tr. I) 41:21-42:4, in fact, that paper does not discuss the FDT z-test at all and was not published in a peer-reviewed publication. Ex. K (Hartzmark, Michael L. and H. Nejat Seyhun, “*The Curious Incident of the Dog That Didn’t Bark and Establishing Cause-and-Effect in Class Action Securities Litigation*,” Va. L. & Bus. Rev. 6 (2011)). Dr. Feinstein also pointed to his amicus brief in *Halliburton Co. v. Erica P. John Fund, Inc.* that he co-authored. 134 S. Ct. 2398 (2014). An amicus brief is not a peer reviewed article, let alone proof of general acceptance by financial economists.

Ex. J (Tabak 2010) 7. Dr. Tabak also notes that there are “conceptual questions relating to whether a market can exhibit some form of inefficiency but still pass the FDT test” and “clear examples” where that could be the case. *Id.* One example is where the market is inefficient because only some, but not all, material news is absorbed into the price of a security. *Id.* at 8. Accordingly, it may be that the FDT method has an exceptionally high rate of error (and is erroneous here).

With respect to standards of control, as the facts here illustrate, Dr. Feinstein modified the FDT z-test in numerous ways as compared to the method actually used by FDT in their article and Dr. Feinstein’s own uses of the test in other securities class actions. *See infra* 18-24. These facts further militate in favor of excluding any opinion based on it.

**d. Dr. Feinstein’s FDT Z-Test
Was Prepared Solely For This Litigation.**

The Sixth Circuit has been appropriately “suspicious of methodologies created for the purpose of litigation” because they signal that the “proposed expert is a quintessential expert for hire” and such methodologies justify applying “the *Daubert* factors with greater rigor.” *Mike’s Train House*, 472 F.3d at 408 (excluding expert’s opinions because expert created methodology solely for purposes of litigation); *Johnson*, 484 F.3d at 435.¹⁴ In this case, Dr. Feinstein’s construction of his FDT z-test exposes him as a “quintessential expert for hire,” justifying application of “the *Daubert* factors with greater rigor.” *Johnson*, 484 F.3d at 435.

Dr. Feinstein admits that he has never used a z-test to assess market efficiency outside the litigation context. Ex. C (Feinstein Tr. III) 604:12-18. Even in the litigation context, Dr. Feinstein has never conducted a z-test to assess market efficiency in the same manner as here.

¹⁴ *See also Wehling v. Sandoz Pharm. Corp.*, 162 F.3d 1158, 1998 WL 546097, at *3 (4th Cir. 1998) (Table Decision) (“Another significant fact weighing against admitting the testimony is where, as here, the expert developed his opinions expressly for the purposes of testifying.”).

Rather, his adaptation of the test was a custom job, specifically designed for this case.

In Dr. Feinstein's two previous versions of the test, he compared earnings dates to the remainder of the days in the class period.¹⁵ As Dr. Feinstein recently opined in another matter, "[a] company's financial results and forecasts are among the most important considerations to investors assessing the value of its stock" and "[c]onsequently, such announcements typically contain material information that could cause the stock price to change."¹⁶ In this case, however, Dr. Feinstein departed from both the FDT model (which compared all news days to non-news days) and his previous method based on earnings dates.¹⁷ Instead of earnings dates – which Dr. Feinstein knew yielded statistically insignificant results in this matter¹⁸ – Dr. Feinstein decided to create, for the first time ever and specifically to support OPERS's position in this case, a methodology for identifying prospective dates to test.

Specifically, Dr. Feinstein reviewed the "*New York Times*" and "*Wall Street Journal*" during the class period, and when an event concerning Freddie Mac was covered in both publications, Dr. Feinstein deemed that event to be one of "greater information flow" (the "NYT/WSJ Test"). Notably, Dr. Feinstein did not even test the dates that the articles were actually published (*i.e.*, the date when information was actually flowing) but instead tested the

¹⁵ Because "generally, earnings announcement dates have a greater flow of information than non-earnings announcement dates," (Ex. A (Feinstein Tr. I) 64:19-66:16), Dr. Feinstein tested twenty-three earnings (or earnings guidance) dates as "news days" in *In re Petrobras Securities Litigation*, Civ. No. 1:14-cv-09662 (S.D.N.Y.). Ex. H (Bajaj Rpt.) Ex. 1, p. 168 at ¶ 126. For the same reasons, he tested twenty earnings release days in *In re Eletrobras Securities Litigation*, Civ. No. 1:15-cv-05754 (S.D.N.Y.). Ex. H (Bajaj Rpt.) Ex. 2, p. 268 at ¶ 172.

¹⁶ Ex. H (Bajaj Rpt.) ¶ 115 (quoting Declaration and Report of Professor Steven P. Feinstein, *In re City of Sterling Heights Gen. Emps. Ret. Sys. v. Prudential Fin., Inc.*, No. 12-cv-05275 (D.N.J. Dec. 8, 2014), ¶ 96).

¹⁷ While the Second Circuit in *Petrobras* affirmed the grant of class certification in that case, it should be noted that Dr. Feinstein did not face a *Daubert* challenge in that case, and he did not modify the FDT z-test as he did here.

¹⁸ See *supra* 3; Ex. A (Feinstein Tr. I) 162:16-163:10.

date that the event identified in the articles occurred, which was prior to the articles' publication for 7 out of the 9 days selected. Ex. H (Bajaj Rpt.) ¶ 112.¹⁹ In other words, over 75% of the time, Dr. Feinstein failed to test the stock price movement in reaction to published news, the entire ostensible purpose of the FDT model.

These modifications (and others, set forth below) evidence that Dr. Feinstein's approach was driven by litigation purposes rather than by an application of accepted principles to the facts.

**3. Dr. Feinstein Did Not Reliably Apply
His Z-Test To The Facts Of This Case.**

Where a proposed expert's opinion is based on an analysis with numerous flaws that bias results in favor of his client, the problem is appropriately addressed through "wholesale exclusion" of the proffered testimony. *See In re Whirlpool Corp. Front-Loading Washer Prod. Liab. Litig.*, 45 F. Supp. 3d 724, 739 (N.D. Ohio 2014).²⁰ Dr. Feinstein's z-test flaws are legion, including several critical errors and judgment calls that also skewed results in favor of his client.

a. The Insufficient Sample Size Invalidates The Z-Test's Results

As discussed above, Dr. Feinstein's z-test results are invalid, as his test did not satisfy the very sample size conditions set forth in authorities on which he relies. *See supra* 15-16. For this

¹⁹ Dr. Feinstein's utilization of the NYT/WSJ Test to select "greater information flow" days distinguishes this case from *Petrobras* based on the reasoning of *Petrobras* itself. *See* Ex. F (Feinstein Rebuttal Rpt.) ¶ 54. There, the court relied on Dr. Feinstein's opinion but specifically cautioned that the outcome might have been different "[w]ere Feinstein using a novel or questionable statistical technique," *id.*, as Dr. Feinstein has plainly done here with his first-ever implementation of the NYT/WSJ Test.

²⁰ *See, e.g., In re Northfield Labs*, 267 F.R.D. at 548 (excluding market efficiency expert because he "made decisions about the study that tend to skew it towards a conclusion that the market was efficient"); *Bell*, 2004 WL 1490009, at *3 (excluding expert testimony where expert included dates that appeared "consciously chosen in order to artificially support his hypothesis of efficiency"); *see also J.T. Colby & Co., Inc. v. Apple, Inc.*, No. 11-cv-4060, 2013 WL 1903883, at *23 (S.D.N.Y. May 8, 2013) ("Some of these errors, on their own, may not have been fundamental enough to justify the exclusion of [the expert's] reports and survey results. Taken together with the serious flaws described above, however, they confirm the conclusion that the plaintiffs' expert reports and surveys are inadmissible[.]").

reason alone, his application of his z-test is unreliable. *See Daubert*, 509 U.S. at 593-94 (stating that expert testimony is unreliable if, among other things, it fails to follow standards controlling the methodology's application).

b. Dr. Feinstein's Z-Test Does Not Identify Enough Statistically Significant Dates To Demonstrate Market Efficiency.

As discussed above, Dr. Feinstein's z-test identified a total of four dates with statistically significant price movements, out of a total of nine dates tested. Ex. E (Feinstein Rpt.) ¶ 142. One of those dates was the last day of the class period, which should not have been tested. *See supra* 12-13. Further, none of those dates was within the first five months of the class period. Ex. H (Bajaj Rpt.) ¶ 110. Put another way, Dr. Feinstein has done absolutely nothing to test the efficiency of the market for Freddie Mac common stock during the first five months of the proposed class period. These facts also demonstrate the lack of reliability of Dr. Feinstein's application of the z-test to this case.

c. Dr. Feinstein Used A Made-For-Freddie Mac Selection Criteria.

Turning first to his selection of dates to test, Dr. Feinstein opted not to use all news dates, as suggested by FDT, nor did he follow his prior practice of testing earnings dates. He knew before devising his made-for-Freddie Mac selection criteria that testing earnings dates would yield statistically insignificant results. Ex. A (Feinstein Tr. I) 162:16-163:10.

Putting aside the selection criteria he opted not to use, the selection criteria he developed here is also not a reliable application of a z-test. Apart from Dr. Feinstein's own *ipse dixit*, there is simply nothing supporting the notion that a z-test comparing the date of events covered by both the *New York Times* and *Wall Street Journal* to other dates has anything to do with whether the market was efficient – *i.e.*, that all new, material information is rapidly reflected in Freddie

Mac's stock price. *See Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 146 (1997) (courts need not admit "opinion evidence which is connected to existing data only by the *ipse dixit* of the expert"). Dr. Feinstein did not perform any analysis to even determine whether the events covered within the NYT/WSJ articles met the criteria for materiality. Ex. A (Feinstein Tr. I) 223:10-224:5. Indeed, it appears that his z-test is at odds with his own event study in that he previously had determined there were no material news days worthy of testing other than November 20, 2007. *See supra* 11-12. Further, the NYT/WSJ method failed to capture earnings (and other) dates when new information relevant to Freddie Mac's stock value was released to the market. Ex. H (Bajaj Rpt.) ¶ 115. It also failed to capture events covered by either the NYT or WSJ, but not both, or by other publications that follow Freddie Mac closely, like the Financial Times.

Dr. Feinstein's FDT z-test thus suffers from many of the same defects that have led other courts to exclude similarly novel amalgamations of various tests designed for the purposes of litigation. *See Kentucky Speedway, LLC v. Nat'l Ass'n of Stock Car Auto Racing, Inc.*, No. 05-cv-138, 2008 WL 113987, at *4 (E.D. Ky. Jan. 7, 2008), *aff'd*, 588 F.3d 908 (6th Cir. 2009) (rejecting expert's opinions based on version of test "produced solely for this litigation").²¹

**d. Dr. Feinstein's Inclusion Of A Purported
"Corrective Disclosure" Date Skewed His Test Results.**

Dr. Feinstein includes November 20, 2007, the last day of the class period and a purported "corrective disclosure" date, in his FDT z-test. As discussed above, FDT warned practitioners to "**exclude those days in which a corrective disclosure was made** because plaintiffs would normally choose a class period where corrective disclosures coincide with large

²¹ *See also Valador, Inc. v. HTC Corp.*, 242 F. Supp. 3d 448, 464–65 (E.D. Va. 2017) ("Bonney's methodology is further unreliable because he created his methodology specifically for this litigation.") (citing *Daubert*, 509 U.S. at 593–94).

negative price movements; **including those days in the analysis [will] bias the results.**” Ex. I (FDT Article) 119 n.155. Thus, before even running his FDT z-test, Dr. Feinstein biased his results by including November 20, 2007 in his analysis, despite a clear warning from the test creators that such inclusion would bias the results. Further, as Dr. Bajaj makes clear, the removal of November 20, 2007 from Dr. Feinstein’s FDT z-test, when combined with the correction of other scientific errors made by Dr. Feinstein (see below), yields results that undermine his opinion on market efficiency. *See* Ex. H (Bajaj Rpt.) ¶¶ 121-125.

e. Dr. Feinstein Committed Several Other Errors And Made Numerous Other Judgment Calls That Skewed His Results In Favor Of OPERS.

In addition to all the foregoing issues, Dr. Feinstein made several other errors and questionable judgment calls, all of which skewed his test in favor of his client. These issues, briefly summarized here, are fully treated in Dr. Bajaj’s Report:

- **Failure to make continuity correction:** Because the number of “news-days” in Dr. Feinstein’s test is small (9), he should have employed a “continuity correction” to account for the difference between the discrete binomial distribution and the continuous normal distribution and his failure skewed his results in favor of OPERS. Ex. H (Bajaj Rpt.) ¶¶ 130-32.
- **Improper pooling of standard deviation estimates:** Deviating from the FDT approach, Dr. Feinstein failed to use an “unpooled” calculation to standard deviation estimates, again skewing his results in favor of OPERS. *Id.* ¶¶ 126-29 (citing FDT Article, 121-22 n.158).
- **Unlike his previous implementations of the z-test, Dr. Feinstein chose to “dummy out” variables, a choice that is outcome determinative:** In another departure from his FDT z-test design in *Petrobras*, Dr. Feinstein “dummied out” (*i.e.*, replaced with neutral variables) his news days from his regression model estimation period. If he had not, his test would not have supported his ultimate opinion. *Id.* ¶¶ 133-34.
- **Unlike a previous implementation of his z-test, Dr. Feinstein chose to combine estimation periods resulting from a “structural break” in the market:** When using regression models to test stock price reactions, economists assume that market volatility remains unchanged and adjust the models to control for changing market volatility, as warranted. Here, Dr. Feinstein did just that for a structural break that he identified on August 9, 2007. But although he divided the Class Period into two subperiods to test for

price reactions, he combined his results across these two periods when calculating his z-statistic. That is not how he performed his z-test in another recent report, and that decision was outcome determinative here. *Id.* ¶¶ 135-40.

- **Dr. Feinstein failed to correct for a volatility change in February 2007:** While Dr. Feinstein made an adjustment for a structural break on August 9, 2007, he failed to make the same type of adjustment for another structural break that occurred on February 27, 2007. Dr. Feinstein admitted that Dr. Bajaj correctly performed a test that proved the existence of this second structural break. Ex. C (Feinstein Tr. III) 653:22-658:16. This failure once more skewed his results in favor of OPERS. Ex. H (Bajaj Rpt.) ¶¶ 141-43.

Given these many mistakes, deviations from the FDT methodology, deviations from Dr. Feinstein's own past practice, and outcome determinative decisions that skewed results in favor of OPERS, this Court should exclude Dr. Feinstein's report and testimony.

C. Dr. Feinstein Impermissibly Offers Legal Opinions.

As discussed above, experts may opine on the facts, but not the law. *See supra* 12-13. As in *Lassberg v. Barrett Daffin Frappier Turner & Engel, LLP*, Dr. Feinstein "is applying the law to the facts in this case, which not only is outside of the scope of his expertise, but in violation of Federal Rule of Evidence 704." No. 13-cv-00577, 2014 WL 12659958, *3-4 (E.D. Tex. Sept. 18, 2014) (excluding a "report [that] reads more like a lawyer's brief than an expert opinion"). For Dr. Feinstein's opinions to be admissible, they must be his opinions as a financial economist, not as a legal advocate. *Hayes*, 518 F. Supp. 2d at 901 (excluding a "report [that] reads less like an expert's unbiased assessment and more like counsel's closing argument."). Because his opinions fail to meet this standard, they should be excluded. Because Dr. Feinstein's economic opinions are inextricably intertwined with his interpretations of the law, his opinions should be excluded on this ground as well.

D. Other Courts Have Deemed Dr. Feinstein's Opinions Unreliable.

This is not the first time that Dr. Feinstein has offered opinions that are not reliable. Indeed, several courts have rejected his opinions. In *Finkelstein v. Liberty Digital*, for example,

then-Vice Chancellor Strine (now the Chief Justice of the Delaware Supreme Court) severely criticized Dr. Feinstein's valuation work, describing Dr. Feinstein as having embraced a "Fantasy Island" approach to his analysis, finding that "Feinstein's assumptions bear no relationship to reality," and stating that "[t]here are so many problems with Feinstein's analysis that it is impossible to address them all." *See Finkelstein v. Liberty Dig., Inc.*, No. Civ. A. 19598, 2005 WL 1074364, at *12, 14, 17 n.31 (Del. Ch. Apr. 25, 2005).

Similarly, in *Dean v. China Agritech*, the district court rejected Dr. Feinstein's conclusion on market efficiency – the very subject on which he opines here. *See* No. 11-cv-01331, 2012 WL 1835708, at *7-8 (C.D. Cal. May 3, 2012). There, like his z-test here, Dr. Feinstein attempted to assess market efficiency by testing dates "in the aggregate." *Id.* at *7. Denying a motion for class certification, the Court questioned whether Dr. Feinstein's assessment was "meaningful." Dr. Feinstein's opinions here bear these same hallmarks of unreliability. *Id.* at *7-8.

III. AN EVIDENTIARY HEARING MAY BE HELPFUL TO THE COURT.

Freddie Mac respectfully requests that the Court hold an evidentiary hearing to further test the reliability of Dr. Feinstein's opinions. *See, e.g., Coffey v. Dowley Mfg., Inc.*, 187 F. Supp. 2d 958, 966, 971, 975, 980 (M.D. Tenn. 2002), *aff'd*, 89 F. App'x 927 (6th Cir. 2003) (finding putative expert whose "pedigree is impressive," nonetheless not qualified as an expert following the court's testing of his methodologies at "helpful" and "necessary" *Daubert* hearing).

CONCLUSION

For the foregoing reasons, the Court should grant Freddie Mac's Motion to Strike Reports and Exclude the Testimony of Dr. Steven P. Feinstein and for an Evidentiary Hearing.

Respectfully submitted,

Defendant,

FREDDIE MAC,

By its attorneys,

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Dated: February 12, 2018

CERTIFICATE OF SERVICE

I hereby certify that on February 12, 2018, a copy of the foregoing “DEFENDANT FREDDIE MAC’S MEMORANDUM OF LAW IN SUPPORT OF ITS MOTION TO STRIKE REPORTS AND EXCLUDE THE TESTIMONY OF DR. STEVEN P. FEINSTEIN AND FOR AN EVIDENTIARY HEARING” was filed electronically. Notice of this filing will be sent by operation of the Court’s CM/ECF system to all parties indicated on the electronic filing receipt. This filing may be accessed through the Court’s CM/ECF system.

/s/ Hugh E. McKay

Hugh E. McKay